July Mixed Waste Subgroup Highlights

The Hanford STCG Mixed Waste Subgroup met on July 9, 1998 in the ETB Spokane River Room. A discussion took place concerning the ASTD proposal that was submitted on PCB screening as well as the other two proposals being prepared for the MWFA. The ASTD proposal was completed and sent in on time, but no feedback has been received as to its status. Larbi Bounini is working on two proposals to be sent to the MWFA for funding. The first deals with an assay system to differentiate TRU from non-TRU for boxed waste. Larbi is working on getting WIPP certification for the system. A list of activities needed to get the system certified has been sent to the MWFA. Discussions are now taking place as to who (EM-30 or -50) will fund each activity. After the MWFA finishes their review, then WIPP and DOE-HQ will review the proposal. Once all are in agreement, a TTP will be developed to begin the work. Larbi is also working on putting together the requirements to meet one of our high priority technology needs, the characterization of long-length equipment to separate TRU from non-TRU portions. Larbi is also updating the need from last year for this year's effort. Once the requirements are clarified, the MWFA will issue an RFP to meet them. The MWFA is now reviewing the requirements and Larbi is awaiting their response before we proceed on this.

Norm Olson reviewed the MW Science and Technology needs statement with the subgroup. There are 18 technology and six science needs for MW this year. The first six technology needs and the six science needs are the same as last year with updated information and clarifications. There are seven new MW technology needs as well as four liquid effluent facility technology needs and one lab technology need. All needs presented were based on meetings with the projects involved. The first technology need on the list, RL-MW01, had the title changed from last year to be more specific to remote macroencapsulation of RH MLLW debris. It is the remote handling of the waste that makes this a need. Also, new waste volume estimates, a new facility definition and a new description were added. The next five technology needs (RL-MW02 to -06) were the same as last year with updated waste volumes, facility definitions, and improved need descriptions. Norm reviewed the new MW technology needs by briefly describing each need and answering questions. The new needs touched on a wide variety of waste forms and waste volumes, including small amounts of Pu238, Hg waste, battery waste, and alpha caisson waste. Most of these wastes have no identified baseline associated with them yet and are part of the M-91 TPA commitments that are being planned. RL-MW07 deals with the need for a non-destructive assay (NDA) system to assay RH TRUW in high beta/gamma fields so as to meet WIPP requirements. This technology need impacts a large volume of waste at Hanford. RL-MW09 is a need for a system to determine the integrity of TRUW drums during retrieval. This is a very high need that would enhance worker safety and reduce the risk of an environmental spill. This technology would have wide applicability across the DOE complex. Need RL-MW013 details the need for a mixing system to be used for chemical stabilization of particulate MLLW for heavy metals as well as for neutralization of the waste. This system would be used at T-Plant but would have uses throughout the DOE complex.

As part of the MW subgroup's new charter, the liquid effluent group in the 200 Area submitted four technology needs this year. The need RL-MW014 deals with solidifying the secondary waste brine from the 200 Area Effluent Treatment Facility (ETF) that has a greater than 50% salt

concentration. The next need, RL-MW015, is for a method to control and measure the amount of corrosion resulting from treating wastewater high in chlorides. The high chloride content results in accelerated corrosion of the stainless steel components in the ETF. Another need at the ETF, RL-MW016, is to identify and control biological foulants so as to avoid costly shutdowns and cleaning of equipment. The final need at ETF, RL-MW017, is the removal of dilute amounts of tritium from wastewater. At the present time there is no cost-effective method available. The final MW technology need, RL-MW018, was submitted by the 200 Area laboratory group. This need is for a device to screen radioactive material for PCB. There is a need for an inexpensive, rapid measurement of PCB content in highly radioactive samples. The six MW Science needs are unchanged from last year.

Don Engelman discussed the spent nuclear fuel (SNF) needs that have been sent to the MW Subgroup for review. Last year the SNF needs were reviewed in the D&D Subgroup, but they seem to fit better in the MW Subgroup. There are five SNF technology needs and one science need. Three of the technology needs are the same as last year as is the science need. The two new SNF technology needs deal with various aspects of the multi-canister overpacks (MCOs). The need, RL-SNF04, deals with the need to monitor the MCOs while they are in storage. The other new need, RL-SNF05, deals with a methodology or system to verify that the MCOs are compatible with repository requirements. This need is not now in the SNF program but is a need to be dealt with by someone in the future. One more SNF need is being written up and will be out next week. After discussing the SNF science need, it was decided to drop it from this year's list as there is no longer a need for it at K-Basin. It would be up to the D&D Subgroup to add this science need for the other basin cleanout activities.

The next MW Subgroup meeting is scheduled for August 13 at 1:00 p.m. in the ETB Wenatchee River Room.

Mixed Waste Subgroup Meeting Attendees - 6/11/98

Ted Anderson	BHI	372-9343
John April	BHI	372-9126
Gary Ballew	PREC	946-0611
Larbi Bounini	WMH	376-4650
Ellen Dagan	DOE-RL	376-3811
Don Engelman	NHC/FDH	372-6536
Eric Gerber	FDH-SNF	376-9356
Jim Hanson	DOE-RL	372-4503
Norm Olson	FDH-TM	372-4810
Gordon Rogers	HAB	547-7403
Steve Weakley	PNNL	372-4275